

14 12. (Amended) The stent of claim [1] 33, wherein [the] each connecting member has a larger longitudinal dimension when each annular element is in the expanded state than in the compressed state to compensate for the smaller longitudinal dimension of the annular element in the expanded state.

43 15 13. (Amended) The stent of claim [1] 33, wherein [the] each connecting member has a smaller longitudinal dimension when each annular element is in the compressed state than in the expanded state to compensate for the larger longitudinal dimension of the annular element in the compressed state.

44 16 16. (Amended) The stent of claim [1] 33, wherein the stent has a plurality of segments along its length, each segment assuming a different diameter when the [stent is in its] annular elements are in their expanded state.

21 22. (Amended) A stent [having a plurality of segments along its length and] having a first segment and a second segment, with each segment having a diameter and comprising:

a plurality of annular elements, each annular element having a compressed state and an expanded state;

at least one connecting member connecting adjacent annular elements; [and]

45 a plurality of apertures defined by adjacent annular elements and connecting members, each aperture having a size and a geometric configuration;

with the first and second segments having substantially the same diameter in the compressed state; and

wherein the apertures of [different stent] the first and second segments have different sizes but substantially the same geometric configuration when the first and second segments are in the expanded state.

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G6 23<sup>24</sup>. (Amended) The stent of claim 22<sup>21</sup>, wherein each segment of the stent assumes a different diameter when the [stent is in its] annular elements are in their expanded state.

33 27. (Amended) A stent having a plurality of segments and comprising:

a plurality of annular elements, each annular element having a compressed state and an expanded state;

3 G7 <sup>1</sup> ~~a plurality of connecting members~~  
~~at least one connecting member~~ connecting adjacent annular elements; and

[means for providing] a plurality of gaps formed by omitting at least one of the connecting members between adjacent annular elements so as to provide two of the plurality of segments of the stent with different degrees of flexibility.

35 30. (Amended) [The stent of claim 29,] A stent having a plurality of segments and comprising:

a plurality of annular elements, each annular element having a compressed state and an expanded state;

3 A8 <sup>1</sup> ~~a plurality of connecting members~~  
~~at least one connecting member~~ connecting adjacent annular elements; and

wherein each annular element comprises a plurality of alternating struts and apices connected to each other to form a substantially annular configuration, and wherein the connecting members are connected to the apices of the adjacent annular elements;

[wherein the means for providing two of the plurality of segments of the stent with different degrees of flexibility comprises] and wherein a plurality of gaps are formed by omitting at least one of the struts so as to provide two of the plurality of segments of the stent with different degrees of flexibility.

Please add the following new claims:

1--33. (New) A stent comprising:

a plurality of annular elements, each annular element having a compressed state and an expanded state, wherein each annular element has a longitudinal dimension which is smaller in the radially expanded state than in the compressed state; and

connecting members connecting adjacent annular elements;

wherein the annular elements and connecting members are made of Nitinol, with each connecting member preset with an elasticity which causes the connecting member to elongate longitudinally when the annular elements are in their expanded state to compensate for the smaller longitudinal dimension of the annular elements in the expanded state.

20 34. (New) The stent of claim 33, wherein the annular elements and connecting members define an alternating longitudinal pattern of annular elements and connecting members.

38 35. (New) A stent comprising:

a plurality of annular elements, each annular element having a compressed state and an expanded state, and each annular element including a plurality of alternating struts and apices connected to each other to form a substantially annular configuration; and

at least one connecting member connecting adjacent annular elements;

wherein at least one of the annular elements is closed such that the plurality of alternating struts and apices are connected to each other to form a closed annular element, and wherein at least one of the annular elements are open such that the plurality of alternating struts and apices are not connected at at least one location.

39 36. (New) The stent of claim 35, wherein the at least one connecting member is connected to the apices of the adjacent annular members.

40 37. (New) The stent of claim 35, wherein the plurality of struts comprises left and right struts, with each pair of left and right struts connected to each other at an apex.

41 38. (New) The stent of claim 35, wherein each strut has a longitudinal dimensional which is smaller when the annular elements are in the expanded state than in the compressed state.

42 39. (New) The stent of claim 35, wherein each strut has a longitudinal dimensional which is larger when the annular elements are in the compressed state than in the expanded state.

43 40. (New) The stent of claim 35, wherein <sup>the at least one connecting</sup> ~~the connecting~~ member has a plurality of alternating segments.

44 41. (New) The stent of claim 40, wherein <sup>the at least one connecting</sup> ~~the connecting~~ member has a plurality of alternating curved segments defining alternating top and bottom curved apices.

45 42. (New) The stent of claim 41, wherein the plurality of alternating curved segments have a higher amplitude and a smaller wavelength when the annular elements are in the expanded state than when the annular elements are in the compressed state.

46 43. (New) The stent of claim 40, wherein <sup>the at least one connecting</sup> ~~the connecting~~ member has a plurality of alternating curved and straight segments.

47 44. (New) The stent of claim 40, wherein <sup>the at least one connecting</sup> ~~the connecting~~ member has a plurality of alternating and angled straight segments.

48 45. (New) The stent of claim 35, wherein the at least one connecting member is preset with an elasticity which causes the

connecting member to elongate longitudinally when the annular elements are in their expanded state to compensate for the smaller longitudinal dimension of the annular elements in the expanded state.

49/ 46. (New) The stent of claim 45, wherein the stent is made from Nitinol. 48

50/ 47. (New) The stent of claim 35, wherein the annular elements and the at least one connecting member define an alternating longitudinal pattern of annular elements and connecting members. 38

9 51/ 48. (New) The stent of claim 35, wherein the stent has a plurality of segments along its length, each segment assuming a different diameter when the annular elements are in their expanded state. 38

52/ 49. (New) The stent of claim 48, wherein the stent has a tapered configuration in which the diameter of the stent gradually changes from one segment to another segment. 51

53/ 50. (New) The stent of claim 48, wherein the stent has a stepped configuration in which the diameter of the stent transitions abruptly from one segment to another segment. 51

54/ 51. (New) The stent of claim 35, further in combination with a biocompatible graft covering. 38

26/ 52. (New) The stent of claim 22, wherein the at least one connecting member has a plurality of alternating segments. 21

3 27/ 26 *the at least one connecting*  
 53. (New) The stent of claim 52, wherein ~~the connecting~~  
 member has a plurality of alternating curved segments defining  
 alternating top and bottom curved apices.

28/ 27  
 54. (New) The stent of claim 53, wherein each of the  
 plurality of alternating curved segments has an amplitude and a  
 wavelength, and wherein the plurality of alternating curved  
 segments have a smaller amplitude and a greater ~~wavelength~~ than  
 when the annular elements are in the compressed state.

40 B17 29/ 26  
 55. (New) The stent of claim 52, wherein the at least one  
 connecting member has a plurality of alternating curved and  
 straight segments.

9 30/ 26  
 56. (New) The stent of claim 52, wherein the at least one  
 connecting member has a plurality of alternating and angled  
 straight segments.

31/ 21  
 57. (New) The stent of claim 22, wherein the stent is made  
 from Nitinol.

32/ 21  
 58. (New) The stent of claim 22, wherein each annular  
 element comprises a plurality of alternating struts and apices  
 connected to each other to form a substantially annular  
 configuration, with at least one of the annular elements provided  
 in an open configuration such that the plurality of alternating  
 struts and apices are not connected at at least one location.

34/ 33  
 59. (New) The stent of claim 27, wherein a plurality of  
 connecting members are omitted, with the omitted connecting  
 members forming a spiral pattern.